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| APPLICATION NO.         | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------|-------------|----------------------|---------------------|------------------|
| 09/900,308              | 07/06/2001  | Tadashi Takeda       | 500615.20142        | 5670             |
| 7590                    | 12/28/2004  |                      | EXAMINER            |                  |
|                         |             |                      | VUONG, BACH Q       |                  |
|                         |             |                      | ART UNIT            | PAPER NUMBER     |
|                         |             |                      | 2653                |                  |
| DATE MAILED: 12/28/2004 |             |                      |                     |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

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|                              |                        |                     |
|------------------------------|------------------------|---------------------|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |
|                              | 09/900,308             | TAKEDA, TADASHI     |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |
|                              | Bach Q. Vuong          | 2653                |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 15 September 2004.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-7 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) All    b) Some \* c) None of:
      1. Certified copies of the priority documents have been received.
      2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
      3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

This communication is responsive to an amendment filed on 9/15/2004

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Abe et al. (US 6,084,843).

Regarding claim 1, see Figs. 9-16 which show a beam-guiding optical device in an optical head device to bring beams if different wavelengths which are emitted by separate light sources together onto the same optical axis or to guide the beams onto a common photo receiving device, comprising: an incident plane and an exit plane (see plate 25 in Figs. 9-16) which are being back to back wherein one of the incident plane and the exit plane has a stair-like surface; wherein a step height (see plate 25 in Figs 14-16) between neighboring treads in the stair-like surface is set to cause a phase difference corresponding to "n" wavelengths to one of the beams when the one of the beams passes through the neighboring treads, and n is equal so as not to change the traveling direction.

Regarding claim 2, see Fig. 12B which shows a beam-guiding optical device in an optical head device wherein the treads are curved.

Regarding claim 3, see Fig. 12B which shows a beam-guiding optical device in an optical head device wherein the treads are formed concentrically.

Regarding claim 4, see Figs. 9-16 which show an optical head device having a beam-guiding optical device, comprising: a first light source (see light source 21a in Figs.

9-10) for emitting a first beam of light; a second source (see light source 21b in Figs. 9-10) for emitting a second beam of light which differs in wavelength from the first beam of light; an objective lens (see objective lens 26) for converging the light and second beams of light onto a recording surface of an optical recording medium; and a common photo receiving device (see detector 28) for receiving the first and second beams of light which are reflected from the recording of the optical recording medium through the objective lens; wherein the beam-guiding optical device (see plate 25) is placed on an optical path between the objective lens and the common photo device to deflect one of the first and second beams of the light that have been reflected from the recording surface of the optical recording medium and to guide both of the first and second beams of light onto the common photo receiving device.

Regarding claim 5, see Figs. 9-10 which show an optical head device having a beam-guiding optical device, wherein the first and second light sources are stored in a single package as a light source unit (see compound LD 21).

Regarding claim 6, see Figs. 9-16 which show an optical head device having a beam-guiding optical device comprising: a first light source (see light source 21a) for emitting a first beam of light; a second light source (see light source 21b) for emitting a second beam of light which differs from in wavelength form the first beam; an objective lens (see objective lens 26) for converging the first and second beams of light onto a recording surface of an optical recording medium; and a common photo receiving device (see detector 28) for receiving the first and second beams of light that are reflected from the recording surface of the optical recording medium through the objective lens; wherein the beam-guiding optical device (see plate 25) is placed on an optical path between the first

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and second light sources and the objective lens to bring the first and second beams of light together onto the same optical axis and to guide them to the objective lens.

Regarding claim 7, see Figs. 9-10 which show an optical head device having a beam-guiding optical device wherein the first and second light sources are stored in a single package as a light source unit (see compound LD 21).

***Response to Arguments***

Applicant's arguments with respect to claimed invention have been considered but are moot in view of the new ground(s) of rejection.

***Cited References***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited references relate to an optical head apparatus having a HOE plate placed guiding lights to an objective lens.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bach Q. Vuong whose telephone number is (703) 305-7355. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (703) 305-6137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



BV  
December 22, 2004

|                                   |  |                         |   |             |
|-----------------------------------|--|-------------------------|---|-------------|
| <b>Notice of References Cited</b> |  | Application/Control No. | Applicant(s)/Patent Under Reexamination |             |
|                                   |  | 09/900,308              | TAKEDA, TADASHI                         |             |
|                                   |  | Examiner                | Art Unit                                | Page 1 of 1 |
|                                   |  | Bach Q. Vuong           | 2653                                    |             |

**U.S. PATENT DOCUMENTS**

| * |   | Document Number<br>Country Code-Number-Kind Code | Date<br>MM-YYYY | Name              | Classification |
|---|---|--|-----------------|-------------------|----------------|
|   | A | US-6,084,843                                     | 07-2000         | Abe et al.        | 369/112.07     |
|   | B | US-5,177,349                                     | 01-1993         | Setani, Michitaka | 250/208.1      |
|   | C | US-  |                 |                   |                |
|   | D | US-  |                 |                   |                |
|   | E | US-  |                 |                   |                |
|   | F | US-  |                 |                   |                |
|   | G | US-  |                 |                   |                |
|   | H | US-  |                 |                   |                |
|   | I | US-  |                 |                   |                |
|   | J | US-  |                 |                   |                |
|   | K | US-  |                 |                   |                |
|   | L | US-  |                 |                   |                |
|   | M | US-  |                 |                   |                |

**FOREIGN PATENT DOCUMENTS**

| * |   | Document Number<br>Country Code-Number-Kind Code | Date<br>MM-YYYY | Country | Name | Classification |
|---|---|--|-----------------|---------|------|----------------|
|   | N |  |                 |         |      |                |
|   | O |  |                 |         |      |                |
|   | P |  |                 |         |      |                |
|   | Q |  |                 |         |      |                |
|   | R |  |                 |         |      |                |
|   | S |  |                 |         |      |                |
|   | T |  |                 |         |      |                |

**NON-PATENT DOCUMENTS**

| * |   | Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages) |
|---|---|---|
|   | U |   |
|   | V |   |
|   | W |   |
|   | X |   |

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.